LANDS AND FORESTS
TECHNICAL NOTE

THE 1986 NOVA SCOTIA MOOSE SEASON

Art Patton

A sizable and apparently healthy and growing moose herd on the Cape Breton Highlands, resulting from the 1949 introduction, led the Wildlife Division of the Department of Lands and Forests to recommend a season for a limited number of moose hunters. Two hundred licenses were issued on the luck of a draw from the 12,000 applicants paying the prescribed five dollar application fee. Successful applicants purchased a license permitting them to hunt in Victoria and Inverness counties and to kill one moose regardless of sex or age. Hunter success was exceptionally high: 185 moose were taken by 200 licensed hunters during the five-day hunt.

Of the 185 moose taken, eight were killed in the area north of Cape Breton Highlands National Park and the remainder from the Highlands south of the park, mostly near roads. (See Figure 1).

Table 1 and Figure 2 indicate the number of moose by sex and age group, based on the tooth wear and replacement method of aging. It is felt that the calf portion of the kill unfortunately reflects hunter choice rather than age structure of the population. The large disparity between male and female calves is believed to be more attributable to faulty hunter reporting rather than to actual sex ratio disparity among calves in the population. The age distrubution of the harvest, if representative of the population, suggests a relatively young herd typical of a regularly harvested population – despite the fact that this herd is descended from a 1949 introduction and has been legally harvested only twice, in 1980 and 1981. Moreover, in those years only 36 and 28 moose were taken respectively. In 1981, 14 of the 20 moose aged from that harvest were prime breeding males, one was a prime female and the other five were yearling males (Patton, 1982).

As indicated in Table 1 the 1986 harvest consisted of 79 prime breeding bulls, 26 prime cows, 43 yearling males, 8 yearling females, 14 calves and 15 for which age was not determined.

Table 2 indicates average weights of moose in each age group by sex. The Cape Breton moose introduction came from the subspecies *Alces alces andersonii*, which tends to be heavier per age group than our native subspecies

Table 1. *Moose kill, sex and age. Nova Scotia 1986.*

Age	Male	Female	Total
Calf	2	12	14
Yearling	43	8	51
2.5	35	4	39
3.5	22	11	33
4.5	11	5	16
5.5-6.5	7	2	9
7.5-8.5	2	3	5
9.5-10.5	1	1	2
11.5-13.5	1	0	1
14.5-16.5	0	0	0
Unknown	13	2	15
Total	137	48	185

Table 2. *Moose, average field dressed weights (kg) for sex and age. Nova Scotia 1986.*

Age	Male	Female
Calf	124.74	114.19
Yearling	258.64	205.59
2.5	328.08	260.36
3.5	365.93	252.81
4.5	434.27	293.75
5.5-6.5	431.82	303.45
7.5-8.5	431.14	171.76
9.5-10.5	359.24	234.96
11.5-13.5	425.02	0.00
14.5-16.5	0.00	0.00

Alces alces americana.

Table 3 indicates the average antler development characteristics of males in each age group. Again these measurements can be expected to be somewhat larger than those of our mainland animals.

Table 4 summarizes some of the personal data provided by successful hunters at the mandatory registration stations. This Table indicates that successful hunters spent an average of 11.84 hours hunting. A total outlay of $76,103.00 was reported by these hunters. In some cases at least, this did not include application or license fees and therefore reflected their contribution to the local economy in goods and services. This represented an average expenditure of $411.37 per moose taken. Adding the expenses of unsuccessful hunters would raise the average outlay per moose even higher.

Biological data obtained suggests a mortality rate approaching 30% in this year but does not suggest a reason for the relatively young population remaining from previous years without legal harvests. With only 6% of the population over 4.5 years of age, a relatively high mortality rate is suggested.

To help evaluate the effects of this hunting effort on the moose population on Cape Breton Island, winter surveys and spring inventories will be reviewed.

Acknowledgement

Special thanks are due to the check station operators who worked at a steady run throughout the season weighing, measuring, recording information and removing jawbones from the unexpectedly large number of moose taken by license holders. Thanks also to the Department staff from Baddeck and Whycocomagh who put in long hours of extra work on enforcement, hunter assistance and moose registrations. The smooth operation of any such limited hunts depends on the efforts and contributions of the Operations staff. This hunt was a good example of that contribution. A special thanks also to Mort Stewart, Sid Barber and Bob Moody who voluntarily pitched in to help the registration staff handle the overload. Finally a thanks to the hunters who waited patiently and with very little complaining for their turn to have their moose registered.

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Figure 2. *Moose kill by sex and age in Nova Scotia, 1986*

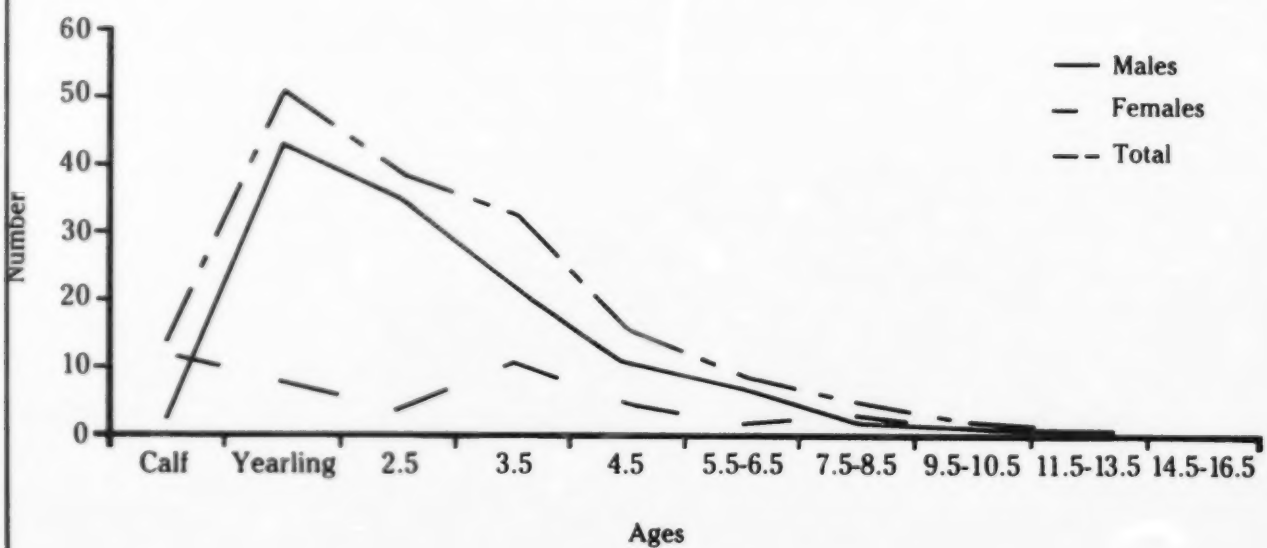
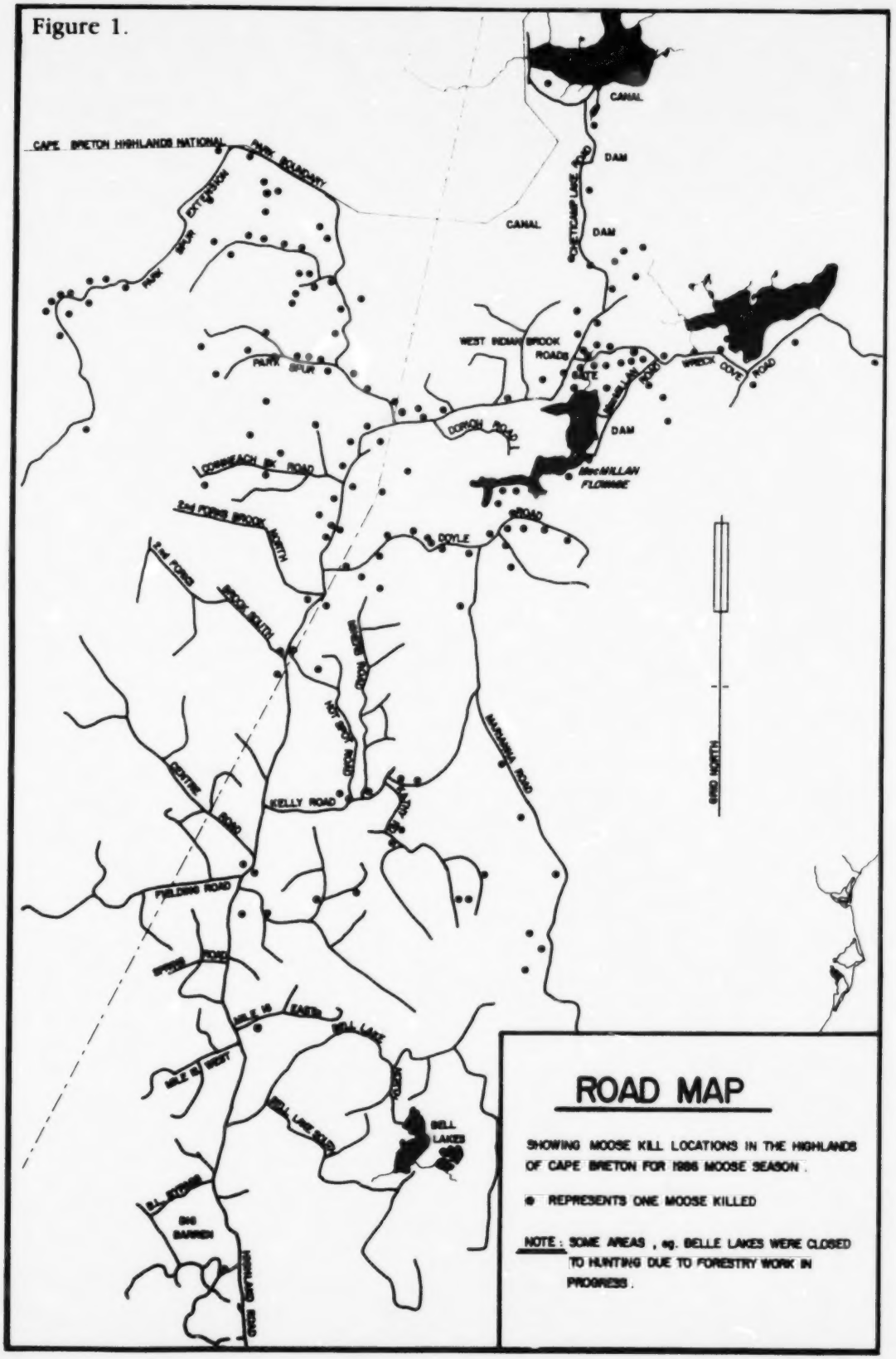


Figure 1.



ROAD MAP

SHOWING MOOSE KILL LOCATIONS IN THE HIGHLANDS OF CAPE BRETON FOR 1986 MOOSE SEASON.

● REPRESENTS ONE MOOSE KILLED

NOTE: SOME AREAS, eg. BELLE LAKES WERE CLOSED TO HUNTING DUE TO FORESTRY WORK IN PROGRESS.

Table 3. *Moose antler measurements. Averages for age group. Nova Scotia 1986.*

Age	Number/ Age Group	Antler Beam (mm)	Palms Total Area(cm^2)	Points	Spread (cm)
Calf	2				
Yearling	43	38.88	1 099.93	8.41	70.97
2.5	35	49.40	1 965.80	12.80	90.02
3.5	22	53.00	2 935.93	16.29	103.45
4.5	11	57.73	4 565.60	20.91	121.16
5.5-6.5	7	60.86	5 081.22	21.43	124.28
7.5-8.5	2	57.50	6 174.18	22.00	113.03
9.5-10.5	1	56.00	2 245.16	15.00	121.92
11.5-13.5	1	60.00	2 683.87	17.00	147.32
14.5-16.5	0				

Table 4. *Weight, hours hunted and expenses: Total and average per moose taken. Nova Scotia 1986.*

Sex	Number	Weight (kg)	Weight /Moose	Hours Hunted	Hours /Moose	Expenses Total	Expenses /Moose
Females	48	10 288	214.34	665.75	13.87	$20,210.00	$421.04
Males	137	44 185	327.29	1,524.16	11.13	$55,893.00	$407.98
Total	185	54 474	297.67	2,189.91	11.84	$76,103.00	$411.37